Air Quality Permit

Issued to:	Valley Excavating**,** Sand, and Gravel 7510 Applegate Drive Helena, MT 59602	Permit #3192-01 Complete Application Received: 10/05/05 Preliminary Determination Issued: 10/14/05 Department's Decision Issued: 11/01/05 Permit Final: 11/17/05 AFS#: 777-3192

An air quality permit, with conditions, is hereby granted to Valley Excavating**,** Sand, and Gravel (Valley), pursuant to Section 75-2-204 and 211 of the Montana Code Annotated (MCA), as amended, and Administrative Rules of Montana (ARM) 17.8.740, *et seq.*, as amended, for the following:

Section I: Permitted Facilities

A. Permitted Equipment

Valley operates a portable aggregate crushing/screening/washing facility at various locations throughout Montana. However, Permit #3192-01 applies while operating at any location in Montana, except within those areas having a Department of Environmental Quality (Department) approved permitting program, those areas considered tribal lands, or those areas in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter of 10 microns or less (PM_{10}) nonattainment areas. *A Missoula County air quality permit will be required for locations within Missoula County, Montana.* A complete list of the permitted equipment is contained in Section I.A of the Permit Analysis.

B. Current Permit Action

On October 12, 2005, Valley submitted a complete permit application and requested to add a crusher (up to 300 tons per hour (TPH)), a screen (up to 300 TPH), and a diesel engine/generator (up to 384 kilowatt (kW)). Permit #3192-01 replaces Permit #3192-00.

Section II: Limitations and Conditions

A. Emission Limitations

1. All visible emissions from any Standards of Performance for New Stationary Source (NSPS)-affected crusher shall not exhibit an opacity of 15% or greater averaged over six consecutive minutes (ARM 17.8.340 and 40 CFR 60, Subpart OOO).

2. All visible emissions from any other NSPS-affected equipment, such as screens or conveyor transfers, shall not exhibit an opacity of 10% or greater averaged over six consecutive minutes (ARM 17.8.340 and 40 CFR, Subpart OOO).

3. All visible emissions from any non-NSPS affected equipment shall not exhibit an opacity of 20% or greater averaged over six consecutive minutes (ARM 17.8.304).

4. Water and water spray bars shall be available on site at all times and operated, as necessary, to maintain compliance with the opacity limitation contained in Sections II.A.1, II.A.2, and II.A.3 (ARM 17.8.749 and ARM 17.8.752).

5. Valley shall not cause or authorize the use of any street, road, or parking lot without

taking reasonable precautions to control emissions of airborne particulate matter (ARM 17.8.308 and ARM 17.8.752).

6. Valley shall treat all unpaved portions of the haul roads, access roads, parking lots, or the general plant area with water and/or chemical dust suppressant, as necessary, to maintain compliance with the reasonable precautions limitation in Section II.A.5 (ARM 17.8.749 and ARM 17.8.752).

7. Crushing production is limited to 2,452,800 tons through one crusher during any rolling 12-month time period (ARM 17.8.749).

8. Valley shall not operate more than one crusher at any given time and the maximum rated design capacity of the crusher shall not exceed 300 tons per hour (TPH) (ARM 17.8.749).

9. Screening production is limited to 4,642,800 tons through two screens during any rolling 12-month time period (ARM 17.8.749).

10. Valley shall not operate more than two screens at any given time and the maximum rated design capacity of the screens shall not exceed 550 tons per hour (TPH) (ARM 17.8.749).

11. If the permitted equipment is used in conjunction with any other equipment owned or operated by Valley, at the same site, production shall be limited to correspond with an emission level that does not exceed 250 tons during any rolling 12-month time period. Any calculations used to establish production levels shall be approved by the Department (ARM 17.8.749).

12. Valley shall comply with all applicable standards and limitations, and the reporting, record keeping, testing, and notification requirements contained in 40 CFR Part 60, Subpart OOO (ARM 17.8.340 and 40 CFR Part 60, Subpart OOO).

B. Testing Requirements

1. Within 60 days after achieving maximum production, but no later than 180 days after initial start-up, an Environmental Protection Agency (EPA) Method 9 opacity test and/or other methods and procedures as specified in 40 CFR 60.675 must be performed on all NSPS affected equipment to demonstrate compliance with the emission limitations contained in Section II.A.1 and II.A.2 (ARM 17.8.340 and 40 CFR 60, General Provisions and Subpart OOO).

2. All compliance source tests must conform to the requirements of the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).

3. The Department may require further testing (ARM 17.8.105).

C. Operational Reporting Requirements

1. If this portable aggregate crushing/screening/washing facility is moved to another location, an Intent to Transfer form must be sent to the Department. In addition, a Public Notice Form for Change of Location must be published in a newspaper of general circulation in the area to which the transfer is to be made, at least 15 days

prior to the move. The Intent to Transfer form and the proof of publication (affidavit) of the Public Notice Form for Change of Location must be submitted to the Department prior to the move. These forms are available from the Department (ARM 17.8.765).

2. Valley shall supply the Department with annual production information for all emission points, as required by the Department in the annual emission inventory request. The request will include, but not be limited to, all sources of emissions identified in the emission inventory contained in the permit analysis.

   Production information shall be gathered on a calendar-year basis and submitted to the Department by the date required in the emission inventory request. Information shall be in the units required by the Department. This information may be used for calculating operating fees, based on actual emissions from the facility, and/or to verify compliance with permit limitations (ARM 17.8.505).

3. Valley shall notify the Department of any construction or improvement project conducted, pursuant to ARM 17.8.745, that would include a change in control equipment, stack height, stack diameter, stack flow, stack gas temperature, source location, or fuel specifications, or would result in an increase in source capacity above its permitted operation or the addition of a new emission unit. The notice must be submitted to the Department, in writing, 10 days prior to startup or use of the proposed de minimis change, or as soon as reasonably practicable in the event of an unanticipated circumstance causing the de minimis change, and must include the information requested in ARM 17.8.745(l)(d) (ARM 17.8.745).

4. Valley shall maintain on-site records showing daily hours of operation and daily production rates for the last 12 months. All records complied in accordance with this permit shall be maintained by Valley as a permanent business record for at least five years following the date of the measurement, must be available at the plant site for inspection by the Department, and must be submitted to the Department upon request (ARM 17.8.749).

5. Valley shall document, by month, the crushing production from the facility. By the 25th day of each month, Valley shall calculate the crushing production from the facility for the previous month. The monthly information will be used to verify compliance with the rolling 12-month limitation in Section II.A.7. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).

6. Valley shall document, by month, the screening production from the facility. By the 25th day of each month, Valley shall calculate the screening production from the facility for the previous month. The monthly information will be used to verify compliance with the rolling 12-month limitation in Section II.A.9. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).

D. Notification

Valley shall provide the Department with written notification of the actual start-up date of the new portable crushing/screening facility within 30 days after the actual start-up date (ARM 17.8.749).

Section III: General Conditions

A. Inspection – Valley shall allow the Department's representatives access to the source at all reasonable times for the purpose of making inspections or surveys, collecting samples, obtaining data, auditing any monitoring equipment (CEMS, CERMS) or observing any monitoring or testing, and otherwise conducting all necessary functions related to this permit.

B. Waiver – The permit and all the terms, conditions, and matters stated herein shall be deemed accepted if Valley fails to appeal as indicated below.

C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving Valley of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided for in ARM 17.8.740, *et seq*. (ARM 17.8.756).

D. Enforcement – Violations of limitations, conditions and requirements contained herein may constitute grounds for permit revocation, penalties or other enforcement as specified in Section 75-2-401, *et seq*., MCA.

E. Appeals – Any person or persons jointly or severally adversely affected by the Department's decision may request, within 15 days after the Department renders its decision, upon affidavit setting forth the grounds therefore, a hearing before the Board of Environmental Review (Board). A hearing shall be held under the provisions of the Montana Administrative Procedures Act. The filing of a request for a hearing does not stay the Department's decision, unless the Board issues a stay upon receipt of a petition and a finding that a stay is appropriate under Section 75-2-211(11)(b), MCA. The issuance of a stay on a permit by the Board postpones the effective date of the Department's decision until conclusion of the hearing and issuance of a final decision by the Board. If a stay is not issued by the Board, the Department's decision on the application is final 16 days after the Department's decision is made.

F. Permit Inspection – As required by ARM 17.8.755, Inspection of Permit, a copy of the air quality permit shall be made available for inspection by Department personnel at the location of the permitted source.

G. Permit Fee – Pursuant to Section 75-2-220, MCA, as amended by the 1991 Legislature, failure to pay the annual operation fee by Valley may be grounds for revocation of this permit, as required by that section and rules adopted thereunder by the Board.

H. Construction Commencement – Construction must be begin within three years of permit issuance and proceed with due diligence until the project is complete or the permit shall be revoked (ARM 17.8.762).

I. The Department may modify the conditions of this permit based on local conditions of any future site. These factors may include, but are not limited to, local terrain, meteorological conditions, proximity to residences, etc.

J. Valley shall comply with the conditions contained in this permit while operating in any location in Montana, except within those areas that have a Department-approved permitting program.

Permit Analysis
Valley Excavating, Sand, and Gravel
Air Quality Permit #3192-01

I. Introduction/Process Description

A. Permitted Equipment

With this permit, Valley Excavating, Sand, and Gravel (Valley) is allowed to operate a portable aggregate crushing/screening/washing facility. The portable wash plant includes a 1987 EL Russ 2-deck wash plant screen (up to 250 tons per hour (TPH)), a 1990 Torgerson Impact crusher (up to 300 TPH), a 1990 El-jay screen (up to 300 TPH), a diesel engine/generator (up to 384 Kilowatt (kW)), and associated equipment. The facility is allowed to move to various locations within Montana.

B. Source Description

Valley proposes to use this aggregate crushing/screening/washing facility and associated equipment to crush, screen, and wash sand and gravel materials for use in various construction operations. For a typical operational setup, materials are loaded into the crushing/screening plant by a feeder, transferred by conveyor, and passed through the crusher. Materials are crushed by the crusher and sent to the screens. Materials are screened, separated, and sent to the wash plant via a conveyor belt. Materials are washed by the wash plant, separated, and conveyed to a stockpile for sale and use in construction operations.

C. Permit History

On June 25, 2005, Valley was issued Permit **#3192-00**, which allowed them to operate a portable wash plant. The portable wash plant included a 1987 EL Russ 2-deck wash plant and associated equipment (three conveyors). The facility was allowed to move to various locations within Montana.

D. Current Permit Action

On October 12, 2005, Valley submitted a complete permit application and requested to add a crusher (up to 300 tons per hour (TPH)), a screen (up to 300 TPH), and a diesel engine/generator (up to 384 kW). Permit **#3192-01** replaces Permit #3192-00.

E. Additional Information

Additional information, such as applicable rules and regulations, Best Available Control Technology (BACT)/Reasonably Available Control Technology (RACT) determinations, air quality impacts, and environmental assessments, is included in the analysis associated with each change to the permit.

II. Applicable Rules and Regulations

The following are partial explanations of some applicable rules and regulations that apply to the facility. The complete rules are stated in the Administrative Rules of Montana (ARM) and are available, upon request, from the Department of Environmental Quality (Department). Upon request, the Department will provide references for locations of complete copies of all applicable rules and regulations or copies where appropriate.

A. ARM 17.8, Subchapter 1 - General Provisions, including, but not limited to:

1. ARM 17.8.101 Definitions. This rule is a list of applicable definitions used in this subchapter, unless indicated otherwise in a specific subchapter.

2. ARM 17.8.105 Testing Requirements. Any person or persons responsible for the emission of any air contaminant into the outdoor atmosphere shall, upon written request of the Department, provide the facilities and necessary equipment (including instruments and sensing devices) and shall conduct tests, emission or ambient, for such periods of time as may be necessary using methods approved by the Department.

3. ARM 17.8.106 Source Testing Protocol. The requirements of this rule apply to any emission source testing conducted by the Department, any source, or other entity as required by any rule in this chapter, or any permit or order issued pursuant to this chapter, or the provisions of the Clean Air Act of Montana, 75-2-101, *et seq*., Montana Code Annotated (MCA).

   Valley shall comply with all requirements contained in the Montana Source Test Protocol and Procedures Manual, including, but not limited to, using the proper test methods and supplying the required reports. A copy of the Montana Source Test Protocol and Procedures Manual is available from the Department upon request.

4. ARM 17.8.110 Malfunctions. (2) The Department must be notified promptly by telephone whenever a malfunction occurs that can be expected to create emissions in excess of any applicable emission limitation or to continue for a period greater than four hours.

5. ARM 17.8.111 Circumvention. (1) No person shall cause or permit the installation or use of any device or any means that, without resulting in reduction of the total amount of air contaminant emitted, conceals or dilutes an emission of air contaminant that would otherwise violate an air pollution control regulation. (2) No equipment that may produce emissions shall be operated or maintained in such a manner as to create a public nuisance.

B. ARM 17.8, Subchapter 2 - Ambient Air Quality, including but not limited to:

1. ARM 17.8.210 Ambient Air Quality Standards for Sulfur Dioxide
2. ARM 17.8.211 Ambient Air Quality Standards for Nitrogen Dioxide
3. ARM 17.8.212 Ambient Air Quality Standards for Carbon Monoxide
4. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter
5. ARM 17.8.223 Ambient Air Quality Standard for PM_{10}

Valley must comply with the applicable ambient air quality standards.

C. ARM 17.8, Subchapter 3 - Emission Standards, including, but not limited to:

1. ARM 17.8.304 Visible Air Contaminants. This rule requires that no person may cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over six consecutive minutes.

2. ARM 17.8.308 Particulate Matter, Airborne. (1) This rule requires an opacity limitation of less than 20% for all fugitive emission sources and that reasonable precautions be taken to control emissions of airborne particulate matter (PM). (2) Under this rule, Valley shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne PM.

3. ARM 17.8.309 Particulate Matter, Fuel Burning Equipment. This rule requires that no person shall cause or authorize to be discharged into the atmosphere PM caused by the combustion of fuel in excess of the amount determined by this section.

4. ARM 17.8.310 Particulate Matter, Industrial Processes. This rule requires that no person shall cause or allow to be discharged into the atmosphere PM in excess of the amount set forth in this section.

5. ARM 17.8.322 Sulfur Oxide Emissions--Sulfur in Fuel. This rule requires that no person shall burn liquid, solid, or gaseous fuel in excess of the amount set forth in this section.

6. ARM 17.8.324 Hydrocarbon Emissions--Petroleum Products. (3) No person shall load or permit the loading of gasoline into any stationary tank with a capacity of 250 gallons or more from any tank truck or trailer, except through a permanent submerged fill pipe, unless such tank truck or trailer is equipped with a vapor loss control device as described in (1) of this rule.

7. ARM 17.8.340 Standards of Performance for New Stationary Sources. This rule incorporates, by reference, 40 Code of Federal Regulations (CFR) 60, Standards of Performance for New Stationary Sources (NSPS). The owner or operator of any stationary source or modification, as defined and applied in 40 CFR Part 60, NSPS, shall comply with the standards and provisions of 40 CFR Part 60.

   In order for this aggregate crushing/screening/washing facility to be subject to NSPS requirements, two specific criteria must be met. First, the plant must meet the definition of an affected facility and, second, the equipment in question must have been constructed, reconstructed, or modified after August 31, 1983. Based on the information submitted by Valley, in obtaining a generalized permit for the aggregate crushing/screening/washing equipment, the equipment currently is NSPS-affected equipment because of the operational sizes of the equipment and equipment dates of manufacture that are operating under the current permit conditions (40 CFR 60, Subpart A - General Provisions and Subpart OOO - Non-Metallic Mineral Processing Plants).

D. ARM 17.8, Subchapter 5 - Air Quality Permit Application, Operation, and Open Burning Fees, including, but not limited to:

1. ARM 17.8.504 Air Quality Permit Application Fees. This rule requires that Valley submit an air quality permit application fee concurrent with the submittal of an air quality permit application. A permit application is incomplete until the proper application fee is paid to the Department. Valley submitted the required permit application fee for the current permit action.

2. ARM 17.8.505 Air Quality Operation Fees. An annual air quality operation fee must, as a condition of continued operation, be submitted to the Department by each source of air contaminants holding an air quality permit, excluding an Open Burning Permit, issued by the Department. This operation fee is based on the actual or estimated actual amount of air pollutants emitted during the previous calendar year.

   An air quality operation fee is separate and distinct from an air quality permit application fee. The annual assessment and collection of the air quality operation fee, described above, shall take place on a calendar-year basis. The Department may insert into any final permit issued after the effective date of these rules, such conditions as may be necessary to require the payment of an air quality operation fee on a calendar-year basis, including provisions that pro-rate the required fee amount.

E. ARM 17.8, Subchapter 7 - Permit, Construction and Operation of Air Contaminant Sources, including, but not limited to:

1. ARM 17.8.740 Definitions. This rule is a list of applicable definitions used in this subchapter, unless indicated otherwise in a specific subchapter.

2. ARM 17.8.743 Montana Air Quality Permits--When Required. This rule requires a facility to obtain an air quality permit or permit alteration to construct, alter, or use any asphalt plant, crusher, or screen that has the Potential to Emit (PTE) greater than 15 tons per year of any pollutant. Valley has a PTE greater than 15 tons per year of total PM, PM_{10}, oxides of nitrogen (NO_x), and carbon monoxide (CO); therefore, an air quality permit is required.

3. ARM 17.8.744 Montana Air Quality Permits--General Exclusions. This rule identifies the activities that are not subject to the Montana Air Quality Permit Program.

4. ARM 17.8.745 Montana Air Quality Permits--Exclusion for De Minimis Changes. This rule identifies the de minimis changes at permitted facilities that do not require a permit under the Montana Air Quality Permit Program.

5. ARM 17.8.748 New or Modified Emitting Units--Permit Application Requirements. (1) This rule requires that a permit application be submitted prior to installation, modification, or use of a source. Valley submitted the required permit application for the current permit action. (7) This rule requires that the applicant notify the public by means of legal publication in a newspaper of general circulation in the area affected by the application for a permit. Valley submitted an affidavit of publication of public notice for the September 14, 2005, issue of the *Independent Record*, a newspaper of general circulation in the city of Helena in Lewis and Clark County, as proof of compliance with the public notice requirements.

6. ARM 17.8.749 Conditions for Issuance or Denial of Permit. This rule requires that the permits issued by the Department must authorize the construction and operation of the facility or emitting unit subject to the conditions in the permit and the requirements of this subchapter. This rule also requires that the permit must contain any conditions necessary to assure compliance with the Federal Clean Air Act (FCAA), the Clean Air Act of Montana, and rules adopted under those acts.

7. ARM 17.8.752 Emission Control Requirements. This rule requires a source to install the maximum air pollution control capability that is technically practicable and economically feasible, except that Best Available Control Technology (BACT) shall be utilized. The required BACT analysis is included in Section III of this permit analysis.

8. ARM 17.8.755 Inspection of Permit. This rule requires that air quality permits shall be made available for inspection by the Department at the location of the source.

9. ARM 17.8.756 Compliance with Other Requirements. This rule states that nothing in the permit shall be construed as relieving Valley of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq*.

10. ARM 17.8.759 Review of Permit Applications. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those permit applications that do not require the preparation of an environmental impact statement.

11. ARM 17.8.762 Duration of Permit. An air quality permit shall be valid until revoked or modified, as provided in this subchapter, except that a permit issued prior to construction of a new or altered source may contain a condition providing that the permit will expire unless construction is commenced within the time specified in the permit, which in no event may be less than one year after the permit is issued.

12. ARM 17.8.763 Revocation of Permit. An air quality permit may be revoked upon written request of Valley, or for violations of any requirement of the Clean Air Act of Montana, rules adopted under the Clean Air Act of Montana, the FCAA, rules adopted under the FCAA, or any applicable requirement contained in the Montana State Implementation Plan (SIP).

13. ARM 17.8.764 Administrative Amendment to Permit. An air quality permit may be amended for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack that do not result in an increase of emissions as a result of those changed conditions. The owner or operator of a facility may not increase the facility's emissions beyond permit limits unless the increase meets the criteria in ARM 17.8.745 for a de minimis change not requiring a permit, or unless the owner or operator applies for and receives another permit in accordance with ARM 17.8.748, ARM 17.8.749, ARM 17.8.752, ARM 17.8.755, and ARM 17.8.756, and with all applicable requirements in ARM Title 17, Chapter 8, Subchapters 8, 9, and 10.

14. ARM 17.8.765 Transfer of Permit. (1) This rule states that an air quality permit may be transferred from one location to another if the Department receives a complete notice of Intent to Transfer location, the facility will operate in the new location for less than one year, the facility will comply with the FCAA and the Clean Air Act of Montana, and the facility complies with other applicable rules. (2) This rule states that an air quality permit may be transferred from one person to another if written notice of Intent to Transfer, including the names of the transferor and the transferee, is sent to the Department.

F. ARM 17.8 Subchapter 8 - Prevention of Significant Deterioration of Air Quality, including,

but not limited to:

1. ARM 17.8.801 Definitions. This rule is a list of applicable definitions used in this subchapter.

2. ARM 17.8.818 Review of Major Stationary Sources and Major Modifications--Source Applicability and Exemptions. The requirements contained in ARM 17.8.819 through ARM 17.8.827 shall apply to any major stationary source and any major modification with respect to each pollutant subject to regulation under the FCAA that it would emit, except as this subchapter would otherwise allow.

   This facility is not a major stationary source because it is not a listed source and does not have a PTE greater than 250 tons per year (excluding fugitive emissions) of any air pollutant.

G. ARM 17.8, Subchapter 12 - Operating Permit Program Applicability, including, but not limited to:

1. ARM 17.8.1201 Definitions. (23) Major Source under Section 7412 of the FCAA is defined as any stationary source having:

   a. PTE > 100 tons/year of any pollutant.

   b. PTE > 10 tons/year of any one Hazardous Air Pollutant (HAP), PTE > 25 tons/year of a combination of all HAPs, or lesser quantity as the Department may establish by rule, or

   c. PTE > 70 tons/year of particulate matter with an aerodynamic diameter of 10 microns or less (PM_{10}) in a serious PM_{10} nonattainment area.

2. ARM 17.8.1204 Air Quality Operating Permit Program Applicability. (1) Title V of the FCAA Amendments of 1990 requires that all sources, as defined in ARM 17.8.1204 (1), obtain a Title V Operating Permit. In reviewing and issuing Air Quality Permit #3192-01 for the Valley facility, the following conclusions were made:

   a. The facility's PTE is less than 100 tons/year for any pollutant.

   b. The facility's PTE is less than 10 tons/year for any one HAP and less than 25 tons/year of all HAPs.

   c. This source is not located in a serious PM_{10} nonattainment area.

   d. This facility is not subject to any current NESHAP standards.

   e. The facility is currently subject to NSPS standards (40 CFR 60, Subpart A - General Provisions and Subpart OOO - Non-Metallic Mineral Processing Plants).

   f. This source is not a Title IV affected source nor a solid waste combustion unit.

   g. This source is not an EPA designated Title V source.

Based on these facts, the Department has determined that Valley will be a minor source of emissions as defined under Title V. However, if minor sources subject to NSPS are required to obtain a Title V Operating Permit, Valley will be required to obtain a Title V Operating Permit.

III. BACT Determination

A BACT determination is required for any new or altered source. Valley shall install on the new or altered source the maximum air pollution control capability that is technologically practicable and economically feasible, except that BACT shall be used.

A. Area Source Fugitive Emissions and Aggregate Crushing/Screening Emissions

Two types of emissions controls are readily available and used for dust suppression of fugitive emissions at the site, fugitive emissions for the surrounding area of operations, and for equipment emissions from the crushing/screening operation. These two control methods are water and chemical dust suppressant. Chemical dust suppressant could be used for dust suppression on the area surrounding the crushing/screening operation and for emissions from the crushing/screening operation. However, because water is more readily available, is more cost effective, is equally effective as chemical dust suppressant, and is more environmentally friendly, water has been identified as the most appropriate method of pollution control of particulate emissions for the general plant area. In addition, water suppression has been required of recently permitted similar sources. However, Valley may use chemical dust suppressant to assist in controlling particulate emissions from the surrounding plant area where it would assist in reducing emissions of particulate matter.

Valley shall not cause or authorize to be discharged into the atmosphere from any NSPS-affected crusher, screen, or associated equipment any visible emissions that exhibit an opacity of 15% or greater averaged over six consecutive minutes. Valley shall not cause or authorize to be discharged into the atmosphere from any affected screen, any visible emissions that exhibit an opacity of 10% or greater averaged over six consecutive minutes. Further, Valley shall not cause or authorize to be discharged into the atmosphere from any non-NSPS affected equipment, any visible emissions that exhibit an opacity of 20% or greater averaged over six consecutive minutes. Valley must also take reasonable precautions to limit the fugitive emissions of airborne particulate matter from haul roads, access roads, parking areas, and the general area of operation. Valley is required to have water spray bars and water available on site (at all times) and to apply the water, as necessary, to maintain compliance with the opacity and reasonable precaution limitations. Valley may also use chemical dust suppression to maintain compliance with emission limitations in Section I.A of Permit #3192-01. The Department determined that using water spray bars, water, and/or chemical dust suppressant to maintain compliance with the opacity requirements and reasonable precaution limitations constitutes BACT for the crushing/screening operation.

B. Diesel Generator/Engine

Because of the limited amount of emissions produced by the diesel generator/engine and the lack of readily available/cost effective add-on controls, add-on controls would be cost prohibitive. Therefore, the Department determined that proper operation and maintenance with no additional controls would constitute BACT for the diesel generator/engine.

The control options required for the proposed crushing/screening facility and for the diesel generator/engine that would be used to power the facility are similar to other recently permitted similar sources.

IV. Emission Inventory

	Tons/Year					
Source	**PM**	**PM_{10}**	**NOx**	**VOC**	**CO**	**SO_x**
crusher (up to 300 TPH)	3.07	1.47				
screen (up to 300 TPH)	19.32	9.20				
Wash Plant screen (up to 250 TPH)	10.35	4.93				
Material Transfer (9 Transfers)	16.00	7.73				
Pile Forming (6 Piles)	25.75	12.26				
Bulk Loading (3 Loads)	15.45	7.36				
Diesel Generator (up to 384 kW)	4.96	4.96	69.92	5.57	15.07	4.62
Haul Roads	2.74	1.23				
Total	97.64	49.14	69.92	5.57	15.07	4.62

- A complete emission inventory for Permit #3192-01 is on file with the Department. Limits were placed upon crushing and screening production (adjusted to 280 tons per hour) to keep the PM_{10} emissions below the 50-ton per year modeling threshold.

V. Air Quality Impacts

In the view of the Department, the amount of controlled emissions generated by this project will not exceed any set ambient standard. In addition, this source is portable and any air quality impacts will be minimal and short-lived.

VI. Taking or Damaging Implication Analysis

As required by Section 2-10-101 to 105, MCA, the Department conducted a private property taking and damaging assessment and determined there are no taking or damaging implications.

VII. Environmental Assessment

An environmental assessment, required by the Montana Environmental Policy Act, was completed for this project. A copy is attached.

DEPARTMENT OF ENVIRONMENTAL QUALITY
Permitting and Compliance Division
Air Resources Management Bureau
P.O. Box 200901, Helena, Montana 59620
(406) 444-3490

FINAL ENVIRONMENTAL ASSESSMENT (EA)

Issued to: Valley Excavating, Sand, and Gravel
7510 Applegate Drive
Helena, MT 59602

Air Quality Permit Number: 3192-01

Preliminary Determination Issued: October 14, 2005
Department Decision Issue: November 1, 2005
Permit Final: November 17, 2005

1. *Legal Description of Site*: Valley submitted a permit application to operate a portable aggregate crushing/screening/washing facility that would originally locate in the SE¼ of the NW¼ of Section 8, Township 10 North, Range 3 West, in Lewis and Clark County, Montana. However, Permit #3192-02 applies while operating at any location in Montana, except within those areas having a Department approved permitting program, those areas considered tribal lands, or those areas in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter of 10 microns or less (PM_{10}) nonattainment areas. An addendum to this air quality permit will be required if Valley intends to locate in or within 10 km of certain PM_{10} nonattainment areas. *A Missoula County air quality permit will be required for locations within Missoula County.*

2. *Description of Project:* Valley proposes to use this crushing/screening facility to screen and sort sand and gravel materials for use in various construction operations. For a typical operational setup, materials are loaded into the crushing/screening plant by a feeder, transferred by conveyor, and passed through the crusher. Materials are crushed by the crusher and sent to the screens. Materials are screened, separated, and sent to the wash plant via a conveyor belt. Materials are washed by the wash plant, separated, and conveyed to a stockpile for sale and use in construction operations.

3. *Objectives of the Project:* Valley, in an effort to increase business and revenue for the company through the construction and use of their new crushing/screening operation, submitted a complete application to crush and screen aggregate. This facility would be used to supply aggregate to various construction projects and would allow Valley to operate the portable equipment at various locations throughout Montana, including the proposed initial site location.

4. *Additional Project Site Information:* In many cases, the crushing/screening plant may move to a general site location, or open cut pit, which has been previously permitted through the Industrial and Energy Minerals Bureau (IEMB). If this were the case, a more extensive EA for the site would have been conducted and would be found in the Mined Land Reclamation Permit for that specific site.

5. *Alternatives Considered:* In addition to the proposed action, the Department also considered the "no action" alternative. The "no action" alternative would deny issuance of the air quality preconstruction permit to the proposed facility. However, the Department does not consider the "no action" alternative to be appropriate because Valley demonstrated compliance with all applicable rules and regulations as required for permit issuance. Therefore, the "no action" alternative was eliminated from further consideration.

6. *A Listing of Mitigation, Stipulations, and Other Controls:* A list of enforceable conditions, including a BACT analysis, would be contained in Permit #3192-02.

7. *Regulatory Effects on Private Property:* The Department considered alternatives to the conditions imposed in this permit as part of the permit development. The Department determined that the permit conditions would be reasonably necessary to ensure compliance with applicable requirements and demonstrate compliance with those requirements and would not unduly restrict private property rights.

8. *The following table summarizes the potential physical and biological effects of the proposed project on the human environment. The "no action" alternative was discussed previously.*

		Major	Moderate	Minor	None	Unknown	Comments Included
A.	Terrestrial and Aquatic Life and Habitats			X			yes
B.	Water Quality, Quantity, and Distribution			X			yes
C.	Geology and Soil Quality, Stability, and Moisture			X			yes
D.	Vegetation Cover, Quantity, and Quality			X			yes
E.	Aesthetics			X			yes
F.	Air Quality			X			yes
G.	Unique Endangered, Fragile, or Limited Environmental Resource				X		yes
H.	Demands on Environmental Resource of Water, Air, and Energy			X			yes
I	Historical and Archaeological Sites				X		yes
J.	Cumulative and Secondary Impacts			X			yes

Summary of Comments on Potential Physical and Biological Effects:
The following comments have been prepared by the Department.

A. Terrestrial and Aquatic Life and Habitats

Terrestrials would use the same area as the aggregate crushing/screening operations, which would initially be locating at the same site as the existing Valley wash plant. The facility operations would be considered a minor source of emissions, by industrial standards, with intermittent and seasonal operations. Therefore, only minor effects on terrestrial life would be expected as a result of equipment operations or from pollutant deposition.

Impacts on aquatic life could result from storm water runoff and pollutant deposition, but such impacts would be minor as the facility would be a minor source of emissions (with seasonal and intermittent operations) and only minor amounts of water would be used for pollution control. Also, the nearest water body (an unnamed stream is over 100 meters away) from the proposed operation. At such distances, only minor and temporary effects to aquatic life would be expected from the proposed operation because only minor amounts of pollutants would be emitted. Pollutant emissions would be well dispersed in the area of operation before reaching the water body and only minor deposition would occur. Therefore, only minor and temporary effects to aquatic life and habitat would be expected from the proposed operation.

B. Water Quality, Quantity, and Distribution

Water would be used for pollution control for equipment operations and may be utilized for dust suppression on the surrounding roadways and areas of operation. However, water use would only cause a minor surface disturbance to this proposed operational site, since only minor amounts of water would be required to be used for pollution control. Therefore, at most, only minor surface and groundwater quality impacts would be expected as a result of using water for dust suppression because only small amounts of water would be required to control air pollutant emissions and deposition of air pollutants upon surrounding water bodies would be minor (as described in Section 8.F of this EA).

C. Geology and Soil Quality, Stability, and Moisture

The additional aggregate crushing/screening operations would only have minor impacts on soils for this or any proposed site location (due to the construction and use of the proposed facility) because the facility is relatively small in size, would use only relatively small amounts of water for pollution control, and would only have seasonal and intermittent operations. Further, the facility would generate relatively small amounts of air pollutants that would be widely dispersed before depositing upon the surrounding soils, typically soils within a previously disturbed open-cut pit. Therefore, any affects upon geology and soil quality, stability, and moisture at any proposed operational site would be minor.

D. Vegetation Cover, Quantity, and Quality

Because the additions to the facility would be a minor source of emissions by industrial standards and would initially (and typically) operate in areas previously designated and used for aggregate crushing/screening/washing, impacts from the emissions upon vegetative cover, quality, and quantity would be minor.

As described in Section 8.F of this EA, the amount of air emissions from this project would be minor. As a result, the corresponding deposition of the air pollutants on the surrounding vegetation would also be minor. Also, because the water usage is minimal, as described in Section 8.B, and the associated soil disturbance is minimal, as described in Section 8.C, corresponding vegetative impacts would be minor.

E. Aesthetics

The additional aggregate crushing/screening operations would be visible and would create additional noise while operating in the initial proposed site location and other permitted operational sites. However, Permit #3192-01 would include conditions to control emissions, including visible emissions from the plant. Therefore, because the facility is portable, would operate on an intermittent and seasonal basis, and would typically locate within an open-cut pit, any visual and noise impacts would be minor and short-lived.

F. Air Quality

The air quality impacts from the proposed project would be minor because the facility would be relatively small, would operate on an intermittent and temporary basis, and would initially locate in a previously disturbed site. Permit #3192-01 would include conditions limiting the opacity from the plant, as well as requiring water spray bars and other means to control air pollution. Further, Permit #3192-01 would limit total emissions from the aggregate crushing/screening/ washing operations and any additional Valley equipment operated at the site to 250 tons/year or

less, excluding fugitive emissions, and limit each component of the aggregate crushing/ screening/washing operation. Thus, because only small and intermittent amounts of air pollutants would be generated and deposited upon any given area of the surrounding environment from this facility, all associated air quality impacts would be minor.

G. Unique Endangered, Fragile, or Limited Environmental Resources

The Department, in an effort to assess any potential impacts to any unique endangered, fragile, or limited environmental resources in the initial proposed area of operations, previously contacted the Montana Natural Heritage Program (MNHP) to identify any species of concern associated with the initial proposed site location (the SE¼ of the NW¼ of Section 8, Township 10 North, Range 3 West, in Lewis and Clark County, Montana). Search results concluded there are no known environmental resources of special concern within the defined area. The defined area, in this case, is defined by the township and range of the proposed site, with an additional one-mile buffer. Based on the small size and temporary nature of the equipment operations, the fact that the facility operations would take place in a previously mined area, and the minimal disturbance expected to the environment (water, air, and soils), the Department determined no impacts to any unique endangered, fragile, or limited environmental resources would occur.

H. Demands on Environmental Resources of Water, Air, and Energy

Due to the relatively small size of the proposed project, the aggregate crushing/screening operations would only require small quantities of water, air, and energy for proper operation. Small quantities of water would be used for dust suppression and would control particulate emissions being generated at the site. Energy requirements would also be small because the energy demands of the aggregate new crushing/screening operation would be relatively small and the facility would not be used continuously. The facility would have limited hours of operation, limited production, and would have seasonal and intermittent use. In addition, impacts to air resources would be minor because the source is small by industrial standards, with intermittent and seasonal operations, and because air pollutants generated by the facility would be widely dispersed. Therefore, any impacts to water, air, and energy resources in any given area would be minor.

I. Historical and Archaeological Sites

The Department previously contacted the Montana Historical Society - State Historical Preservation Office (SHPO) in an effort to identify any historical and/or archaeological sites that may be present in the proposed area of construction/operation. Search results concluded that there are no previously recorded historical or archaeological resources of concern within the area proposed for initial operations. According to past correspondence from SHPO, given the previous industrial disturbance in the area, there would be a low likelihood of adverse disturbance to any known archaeological or historic site. Therefore, no impacts upon historical or archaeological sites would be expected as a result of proposed operation.

J. Cumulative and Secondary Impacts

The proposed additional aggregate crushing/screening operations would cause minor cumulative and secondary impacts to the physical and biological aspects of the human environment because the facility would generate emissions of particulate matter (PM), PM_{10}, oxides of nitrogen (NO_x), volatile organic compound (VOC), carbon monoxide (CO), and sulfur oxide (SO_x). Emissions and noise would cause minimal disturbance because the equipment is small and the facility would be expected to operate in areas designated and used for such operations. Additionally, this facility, in combination with the wash plant and other emissions from equipment operations at the

operational site, would not be permitted to exceed 250 tons per year of non-fugitive emissions. Overall, any cumulative or secondary impacts to the physical and biological aspects of the human environment would be minor.

9. *The following table summarizes the potential economic and social effects of the proposed project on the human environment. The "no action" alternative was discussed previously.*

		Major	Moderate	Minor	None	Unknown	Comments Included
A.	Social Structures and Mores				X		yes
B.	Cultural Uniqueness and Diversity				X		yes
C.	Local and State Tax Base and Tax Revenue			X			yes
D	Agricultural or Industrial Production			X			yes
E.	Human Health			X			yes
F.	Access to and Quality of Recreational and Wilderness Activities			X			yes
G	Quantity and Distribution of Employment			X			yes
H.	Distribution of Population				X		yes
I.	Demands for Government Services			X			yes
J.	Industrial and Commercial Activity			X			yes
K.	Locally Adopted Environmental Plans and Goals			X			yes
L.	Cumulative and Secondary Impacts			X			yes

SUMMARY OF COMMENTS ON POTENTIAL ECONOMIC AND SOCIAL EFFECTS:
The Department has prepared the following comments:

A. Social Structures and Mores

The additional aggregate crushing/screening operations would not cause disruption to the social structures and mores in the area because the source would be a minor source of air emissions (by industrial standards) and would only have intermittent operations. Additionally, the equipment would be expected to operate in an area previously designated and used for aggregate production and in an area removed from the general population. Further, the facility would be a minor source of air pollution and would be required to operate according to the conditions that would be placed in Permit #3192-01. Thus, no native or traditional communities would be affected by the proposed project operations and no impacts upon social structures or mores would result.

B. Cultural Uniqueness and Diversity

The cultural uniqueness and diversity of this area would not be impacted by the proposed additional aggregate crushing/screening operations because the proposed site has already been used for aggregate mining, is a bermed pit, and the facility would be a portable source, with seasonal and intermittent operations. Therefore, the predominant use of the surrounding area would not change as a result of this project and the cultural uniqueness and diversity of the area would not be affected.

C. Local and State Tax Base and Tax Revenue

The additional aggregate crushing/screening operations would have little, if any, impact on the local and state tax base and tax revenue because the proposed project would be a relatively small industrial source (minor source) and would operated on a seasonal and intermittent basis. The proposed project would require the use of a few existing employees. Thus, only minor, if any impacts to the local and state tax base and revenue could be expected from the employees and facility production. Furthermore, the impact to local tax base and revenue would be minor because the source would also be portable and the money generated for taxes would be widespread.

D. Agricultural or Industrial Production

The additional aggregate crushing/screening operations would have only a minor impact on local industrial production since the proposed project is a minor source of emissions (by industrial standards) and would initially (and typically) locate in an existing open-cut pit. There could be minor effects on agricultural land but, the proposed project would be small and temporary in nature, and would be permitted with operational conditions and limitations that would minimize impacts upon surrounding vegetation (as described in Section 8.D of this EA). Additionally, pollution control would be utilized for equipment operations and crushing/screening/washing production limits would be established.

E. Human Health

Permit #3192-01 would incorporate conditions to ensure that the additional aggregate crushing/screening/washing operations would be operated in compliance with all applicable air quality rules and standards. These rules and standards are designed to be protective of human health. As described in Section 8.F of this EA, the air emissions from this proposed project would be minimized by the use of water spray and other conditions that would be established in Permit #3192-01. Further, the facility would be operating on a temporary and intermittent basis. Therefore, only minor impacts would be expected upon human health from the proposed facility.

F. Access to and Quality of Recreational and Wilderness Activities

The additional aggregate crushing/screening operations would initially (and typically) operate within the confines of an existing open-cut pit. Therefore, only minor impacts upon access to and quality of recreational and wilderness activities would result. Additionally, noise from the proposed project would be minor because the facility would typically operate within the confines of an existing and bermed open-cut pit. Also, the proposed project would operate on a seasonal and intermittent basis and would be relatively small by industrial standards. Therefore, any changes in the quality of recreational and wilderness activities created by operating the equipment at a given site would be expected to be minor and intermittent.

G. Quantity and Distribution of Employment

The additional aggregate crushing/screening operations are a small, portable source, with seasonal and intermittent operations and would not be expected to have any long-term affects upon the quality and distribution of employment in any given area of operation. Therefore, no effects upon the quantity and distribution of employment in these areas would be expected.

H. Distribution of Population

The additional aggregate crushing/screening operations are small and would only require a few existing employees to operate. Also, no individuals would be expected to permanently relocate to a given area of operation as a result of operating the crushing/screening facility, which would have only intermittent and seasonal operations. Therefore, the aggregate crushing/screening operations would not disrupt the normal population distribution in any given area of operation.

I. Demands of Government Services

Minor increases would be seen in traffic on existing roadways in the area while the aggregate crushing/screening operations is in progress. In addition, government services would be required for acquiring the appropriate permits for the proposed project and to verify compliance with the permits that would be issued. However, demands for government services would be minor, due to the relatively small size and seasonal nature of the aggregate crushing/screening operations.

J. Industrial and Commercial Activity

The additional aggregate crushing/screening operations would represent only a minor increase in the industrial activity in any given area because the source would be a minor source (relatively small in size by industrial standards) and would be portable and temporary in nature. No additional industrial or commercial activity would be expected as a result of the proposed operation.

K. Locally Adopted Environmental Plans and Goals

The Department is not aware of any locally adopted environmental plans and goals that would affect Valley. Valley would be allowed, by permit, to operate in areas designated by EPA as attainment or unclassified. Permit #3192-01 would contain limits for protecting air quality and to keep facility emissions in compliance with any applicable ambient air quality standards. Because the facility would be a small and portable source, and would have intermittent and seasonal operations, any effects from the proposed project would be minor and short-lived.

L. Cumulative and Secondary Impacts

The additional aggregate crushing/screening operations would cause minor cumulative and secondary impacts to the social and economic aspects of the human environment in the immediate area because the source is a portable, temporary source. Further, no other industrial operations are expected to result from the permitting of this proposed project. Minor increases in traffic would have minor effects on local traffic in the immediate area. Because the source is relatively small and temporary, only minor economic impacts to the local economy would be expected from operating the proposed project. Further, this proposed project may be operated in conjunction with other equipment owned and operated by Valley, but any cumulative impacts upon the social and economic aspects of the human environment would be minor and short-lived. Thus, only minor and temporary cumulative effects would result to the local economy.

Recommendation: An EIS is not required.

If an EIS is not required, explain why the EA is an appropriate level of analysis: The current permitting action is for the construction and operation of a portable crushing/screening plant. Permit #3192-01 includes conditions and limitations to ensure the proposed project will operate in compliance with all applicable rules and regulations. In addition, there are no significant impacts associated with this proposal.

Other groups or agencies contacted or which may have overlapping jurisdiction: Montana Historical Society – State Historic Preservation Office, Natural Resource Information System – Montana Natural Heritage Program.

Individuals or groups contributing to this EA: Department of Environmental Quality – Air Resources Management Bureau, Montana Historical Society – State Historic Preservation Office, Natural Resource Information System – Montana Natural Heritage Program.

EA prepared by: Ron Lowney
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